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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,794	06/06/2005	Chunbo Dong	NTD 0002-US	6509
23719 7590 02/01/2007 KALOW & SPRINGUT LLP 488 MADISON AVENUE 19TH FLOOR NEW YORK, NY 10022			EXAMINER PHAN, HAU VAN	
			ART UNIT 3618	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/01/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/537,794	Applicant(s) DONG ET AL.	
	Examiner Hau V. Phan	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgment

1. The amendment filed on 12/13/2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The main motor further including two motors that are arranged between the left or right driving wheels and the differential gear, respectively, the main motor is arranged on other drive shaft, which is not described in the specification or any drawing.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo (5,722,502) in view of Goo (6,645,106).

Kubo in figures 1-7, discloses a power system for a dual-motor hybrid vehicle, comprising an internal combustion engine (28), a clutch (36), a torque distributing mechanism (38), a drive shaft (38a), a brake system and driving wheels (14), wherein the power system further comprises a main motor (10), a rotor shaft of the main motor connected with an output shaft of the torque distributing mechanism. Kubo also discloses an auxiliary motor or a generator (24), a rotor shaft (38b) of the auxiliary motor connected with a crankshaft of the internal combustion engine via a drive mechanism. The main motor and the auxiliary motor are electrically connected with a power battery (16). Kubo also discloses an entire vehicle controller (20), which can make the power system work in a parallel series hybrid vehicle and a series hybrid vehicle. When the vehicle is in low-speed running operation condition, the system works in a pure electrical driving mode in which the internal combustion engine does not work and only the main motor drives the drive shaft, or the system works in a series driving mode in which the internal combustion engine only drives the auxiliary motor that generates electric power, and the generated electric power is transmitted to the main motor via the power battery to drive the drive shaft. When the vehicle is in full-accelerating operation condition, the system works in a parallel driving mode in which both the internal combustion engine and the main motor drive the vehicle simultaneously (col. 13, lines 32-42). When the vehicle is in braking and decelerating operation condition,

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the system works in an energy recovery mode in which the main motor is controlled to brake and generate electric power, and the power battery is recharged (col. 13, 42-48). When the vehicle is during torque shifting, the system works in auxiliary-driving mode in which the main motor drives the vehicle auxiliary during shifting. When the vehicle is in idling stop operation condition, the system works in an idling stop mode in which the internal combustion engine stops working (col. 13, lines 50-67). When the vehicle is in normal driving operation condition, the system works in normal running mode in which the internal combustion engine drives the vehicle independently (col. 13, lines 15-25). Kubo fails to show a step transmission.

Goo in figures 2-3, teach a transmission for performing reliable continuously variable speed operation comprising a step transmission. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the power system having a torque distributing mechanism of Kubo with the power system having a step transmission as taught by Goo in order to provide a continuously-variable speed change ratio optimal for an engine output.

Regarding claim 2, Kubo discloses the rotor shaft of the main motor connecting with the output shaft of the torque distributing mechanism via a drive mechanism.

Regarding claims 3 and 7, Kubo discloses the drive mechanism including one of shaft drive means, belt drive means, chain drive means, gear drive means, clutch drive means or a combination thereof.

Regarding claim 4, Kubo discloses the main motor and the auxiliary motor that are connected with the power battery via a controller, a control unit and a loop circuit of a distribution box.

Regarding claim 6, Kubo discloses the entire vehicle controller, which can make the power system work in starting mode in which the main motor drives the vehicle automatically when the vehicle is being started.

Regarding claim 8, Kubo discloses the main motor, which is arranged on a drive shaft.

Response to Arguments

5. Applicant's arguments filed 12/13/2006 have been fully considered but they are not persuasive. In response to applicant's remark that Claim 5 does not fail to satisfy the written description requirement. The examiner disagrees, because to obtain a valid patent, a patent application must be filed that contains a full and clear disclosure of the invention in the manner prescribed by 35 U.S.C. 112, first paragraph. The requirement for an adequate disclosure ensures that the public receives something in return for the exclusionary rights that are granted to the inventor by a patent. The grant of a patent helps to foster and enhance the development and disclosure of new ideas and the advancement of scientific knowledge. Upon the grant of a patent in the U.S., information contained in the patent becomes a part of the information available to the public for further research and development, subject only to the patentee's right to exclude others during the life of the patent. In exchange for the patent rights granted, 35 U.S.C. 112,

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first paragraph, sets forth the minimum requirements for the quality and quantity of information that must be contained in the patent to justify the grant. As discussed in more detail below, the patentee must disclose in the patent sufficient information to put the public in possession of the invention and to enable those skilled in the art to make and use the invention. The applicant must not conceal from the public the best way of practicing the invention that was known to the patentee at the time of filing the patent application. Failure to fully comply with the disclosure requirements could result in the denial of a patent, or in a holding of invalidity of an issued patent. Applicant also argues that claim 5 provides adequate written description, as read by a person of ordinary skill in the art, for the claimed subject matter. The examiner agrees, but in the specification does not have any description about the limitation in the claim number 5. Brunner discloses dual motors, but claim 5, claimed "the main motor further includes two motors that are arranged between the left and right driving wheels and the differential gear, respectively, the main motor is arranged on other drive shaft". This vehicle is not dual motors, but probably having three motors.

6. Applicant's arguments with respect to claims 1-4 and 6-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brunner et al. disclose a multiple step transmission; Yamazaki et al. disclose an apparatus for determining state of power train.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau V. Phan whose telephone number is 571-272-6696. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on 571-272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hau V Phan
Primary Examiner
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4/31/07